

## **CITIZEN ADVISORY COMMITTEE RETREAT ISSUE A - BASELINE DETERMINATION**

**How should a mercury emission baseline be established for utility units or other mercury emitting sources that may be affected by requirements to cap and reduce mercury emissions?**

### **ALTERNATIVES:**

1. Select the current year fuel mercury content and emission rate data and apply to historic coal throughput during the identified baseline years.
2. Real time baseline – mercury in fuel compared to stack emissions out.
3. Use the baseline determination procedure in the proposed rules.
4. Use mercury emissions data from a recent year(s) or year(s) after the proposed rules are promulgated.

### **COMMITTEE DISCUSSION:**

Committee members recognized that it was likely that obtaining accurate historical emissions data and fuel mercury content information may be difficult. Alternative 1. received significant support as an appropriate adjustment to the proposed rules that maintained the fundamental approach of a historic baseline but allowed for the use of more accurate estimates of fuel content and emission data. Several committee members believed that USEPA's Information Collection Request data and related stack emission testing should be used as part of the method for determining the baseline under this alternative. Under a multi-pollutant strategy some utilities favor use of the baseline approach expressed in Alternative 2.

### **PROVISIONS IN THE PROPOSED RULE:**

**NR 446.03 Baseline mercury emissions.** This section outlines the requirements for establishing baseline mercury emissions for major electric utilities and major industrial sources. This section also includes the procedures for newly affected sources to establish their baseline mercury emissions. These are sources that become major after the promulgation date of the rules. For major utilities baseline mercury emissions set the level from which reductions are required. The presumptive baseline is the average of annual mercury emissions for 1998, 1999 and 2000. There is an opportunity to request an alternative baseline if the presumptive baseline is felt to be not representative of normal operations. Baseline mercury emissions would become effective 4 years after promulgation of rules.

For the purpose of this rule, a major utility has annual mercury emissions of 100 pounds or more and a major stationary source has annual mercury emissions of 10 pounds or more.

**NR 446.04 Procedures for determining baseline mercury emissions.** This section outlines the procedures for determining baseline mercury emissions from utility and industrial combustion units and process units. For utility and industrial combustion units mercury emission determinations require knowledge of mercury in the fuel used, the quantity of fuel fired and performance test results to determine the mercury removal efficiency of air pollution control equipment. For process units a mass balance approach is required.

### **ADDITIONAL BACKGROUND:**

The Natural Resources Board in their resolution authorizing development of administrative rules directed that a methodology for determining baseline emission levels be included in the proposed rules.

The Technical Advisory Group (TAG) has drafted a brief on this issue. Their draft brief identifies concerns with the procedure included in the proposed rules and identifies alternatives. Remaining work involves a comparison of the proposed rules and alternatives.

The TAG suggests the following alternatives:

1. Select current year fuel mercury content and emission rate data and apply to historic coal throughput during the identified baseline years.
2. Use mercury emissions data from a recent year(s) or year(s) after the proposed rules are promulgated.
3. Set a baseline using historic or current fuel and consumption information.

### **SUMMARY OF PUBLIC COMMENT:**

*Wisconsin Public Service Corporation* – Baseline provisions pose problems for one of their units which has recently undergone a significant change in pollution control equipment.

*Sierra Club* – When setting the baseline consider the amount of mercury emitted before control as the baseline. Establish a panel including public interest for approving any alternative baseline.

*Wisconsin Paper Council* – It is not clear why DNR picked 1998-2000 as the baseline period. Significant mercury reductions have occurred since 1990 and other states have used 1990 as a baseline. DNR should work with the Technical Advisory Group to evaluate alternative baseline periods.

*Alliant Energy* – Expressed concern that more time is needed to implement an emission cap then is provided in the proposed rules, that the provision for setting an alternative baseline is vague, that establishing a historical baseline using the procedures in the proposed rules is difficult and that the procedure for non-utility sources is preferred over the utility baseline procedure.

*Wisconsin Electric* – Opposed to the procedure in the proposed rules because there is a more accurate alternative. The proposed procedures do not account for any coal or emission control changes since the historic baseline period. Recommend a current year baseline, updated annually, set on mercury fuel content and coal consumption. A compromise position is to set a historic baseline that represents the total mercury fuel content. Baseline of mercury fuel content is more consistent with a multi-emissions controls approach, and avoids the inaccuracy of historic estimates of mercury emissions.

*Stora Enso* – Concerned about the quality of historical emission data to set a baseline.

### **COMMITTEE MEMBER INTERESTS:**

*Marc Looze - WED*

We are open to looking at the best method for baseline determination.

*Wayne Stroessner - Random Lake*

It would seem unfair to those plants that have already cleaned up their emissions to set their baseline at the present levels. Scientifically, it would appear that laboratory research would be used to determine the amount of mercury emitted from a measured random mix of coal types. (i.e. determine how much mercury is emitted from one ton of selected coal.) This amount would be used as the baseline for all coal-burning plants. This same method could be used for baseline determination for gas plants, oil plants, incineration plants, etc.

*Mark Yeager - ECCOLA*

Averaging annual Hg emissions for 1998-2000 is a fair way to set this baseline (medically a “baseline” is established at the point of optimum conditions prior to contamination). The goal is to actually reduce emissions rather than obtain credit for reductions since 1990. Emission “spikes” in a current year (or years) before compliance (but after promulgation) could result in a misleading baseline and less reductions than intended.

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